

REMARKS

Claims 13-17 and 19 are pending. Claim 13 stands rejected for obviousness over Matter et al. (J. Med. Chem. 2002 45:2923; hereafter “Matter”), and all claims stand rejected for obviousness over Waer et al. (U.S. Patent No. 7,276,506; hereafter “Waer”). The rejections are based on the disclosure of three compounds in Matter and Waer that are considered by the Office to be homologs of compounds recited in the present claims. As stated by the Office, adjacent homologs are generally considered to be *prima facie* obvious in the absence of unexpected results. Applicants traverse the rejections as applied to the amended claims.

Claim 13 stands rejected for obviousness over Matter and Waer, which both disclose 2-amino-4-morpholino-6-(4-methoxyphenyl)pteridine. As noted by the Office, claim 13 recites 2-amino-4-morpholino-6-(4-ethoxyphenyl) pteridine, 2-amino-4-morpholino-6-(4-propoxyphenyl) pteridine, and 2-amino-4-morpholino-6-(4-butoxyphenyl)-pteridine.

In Example 114 (col. 49 et seq.), Waer describes a Mixed Lymphocyte Reaction (MLR) assay, which “is regarded by those skilled in the art as an in vitro analogue of the transplant rejection since it is based on the recognition of allogenic major histocompatibility antigens on the stimulator leukocytes, byt responding lymphocytes.” (col. 50, ll. 23-27). As is shown in Table 1 on col. 51, the methoxy compound disclosed in Matter and Waer (Example 23) exhibits an IC₅₀ of 15 μmol/L in the MLR assay.

Table 3 on page 68 of the present specification shows the results of the MLR assay performed on 2-amino-4-morpholino-6-(4-ethoxyphenyl) pteridine (Example 103; page 65) and 2-amino-4-morpholino-6-(4-propoxyphenyl) pteridine (Example 107; page 66). The ethoxy compound of claim 13 has an IC₅₀ of 3.7 μmol/L in the MLR assay, and the propoxy compound of claim 13 has an IC₅₀ of 6.8 μmol/L in the MLR assay. The ethoxy compound is *more than four times* as effective than the methoxy compound of Matter and Waer, and the propoxy compound is *more than twice* as effective than the methoxy compound of Matter and Waer. Thus, the ethoxy and propoxy compounds exhibit surprising results over the methoxy compound of Matter and Waer. Moreover, as the

compounds closest to the compound disclosed in Matter exhibit surprising results, there is no reason to assume that the buoxy compound recited in claim 13 would exhibit properties similar to the methoxy compound. Accordingly, the rejection of claim 13 over the methoxy compound should be withdrawn.

In order to proceed to issuance and without agreeing with the Office's position, Applicants have deleted 2-amino-4-(4-methyl-piperidine)-6-[[3,4-(dimethoxyphenyl)]pteridine, 2-amino-4-((R)-sec-butylamine)-6-[[3,4-(dimethoxyphenyl)]pteridine, and 2-amino-4-((S)-sec-butylamine)-6-[[3,4-(dimethoxyphenyl)]pteridine from claim 13. Applicants reserve the right to pursue the deleted compounds in this application or a continuation thereof. This basis of the rejection is now moot.

CONCLUSION

Applicants submit that the claims are in condition for allowance, and such action is respectfully requested. Enclosed is a petition to extend the period for reply for three months to and including April 26, 2008. If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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